

JOSEPH DIXON CRUCIBLE COMPANY

JERSEY
CITY
U.S.A.

A dark, atmospheric illustration of a man in a furnace. He is shirtless, wearing a cloth around his waist, and is bent over, working with long metal tongs. He is positioned in front of a large, arched furnace with a door open. The scene is lit from within the furnace, casting a glow on the man and the surrounding brickwork. The background is dark and indistinct.

GRAPHITE PRODUCTION

DIXON'S GRAPHITE PRODVCTIONS

JOSEPH
DIXON
CRUCIBLE
COMPANY.

JERSEY CITY, U.S.A.

GRAPHITE MINES
AND MILLS AT
TICONDEROGA, N.Y.

CEDAR MILLS AT
CRYSTAL RIVER, FLA.



ESTABLISHED 1827.

INCORPORATED 1868

OFFICERS

E. F. C. YOUNG, President.
JOHN A. WALKER, Vice Pres. & Treas.
GEORGE E. LONG, Secretary.



THIS DESIGN WAS DRAWN WITH A
DIXON'S AMERICAN GRAPHITE ARTIST'S PENCIL.

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JOSEPH DIXON CRUCIBLE COMPANY
JERSEY CITY, U. S. A.

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E. A. Wheatley
Compiler
N. Y.

PREFACE

IN this catalogue will be found a general description, with illustrations, of the principal Graphite Productions of the Joseph Dixon Crucible Company, of Jersey City, U.S.A., arranged, as far as possible, for easy reference.

Owing to market conditions, no prices are given, but a special Price List will accompany the catalogue, or will be sent upon request.

Any information not found in this catalogue will be furnished upon application to the company.

See Index, on page 7, for ready reference.



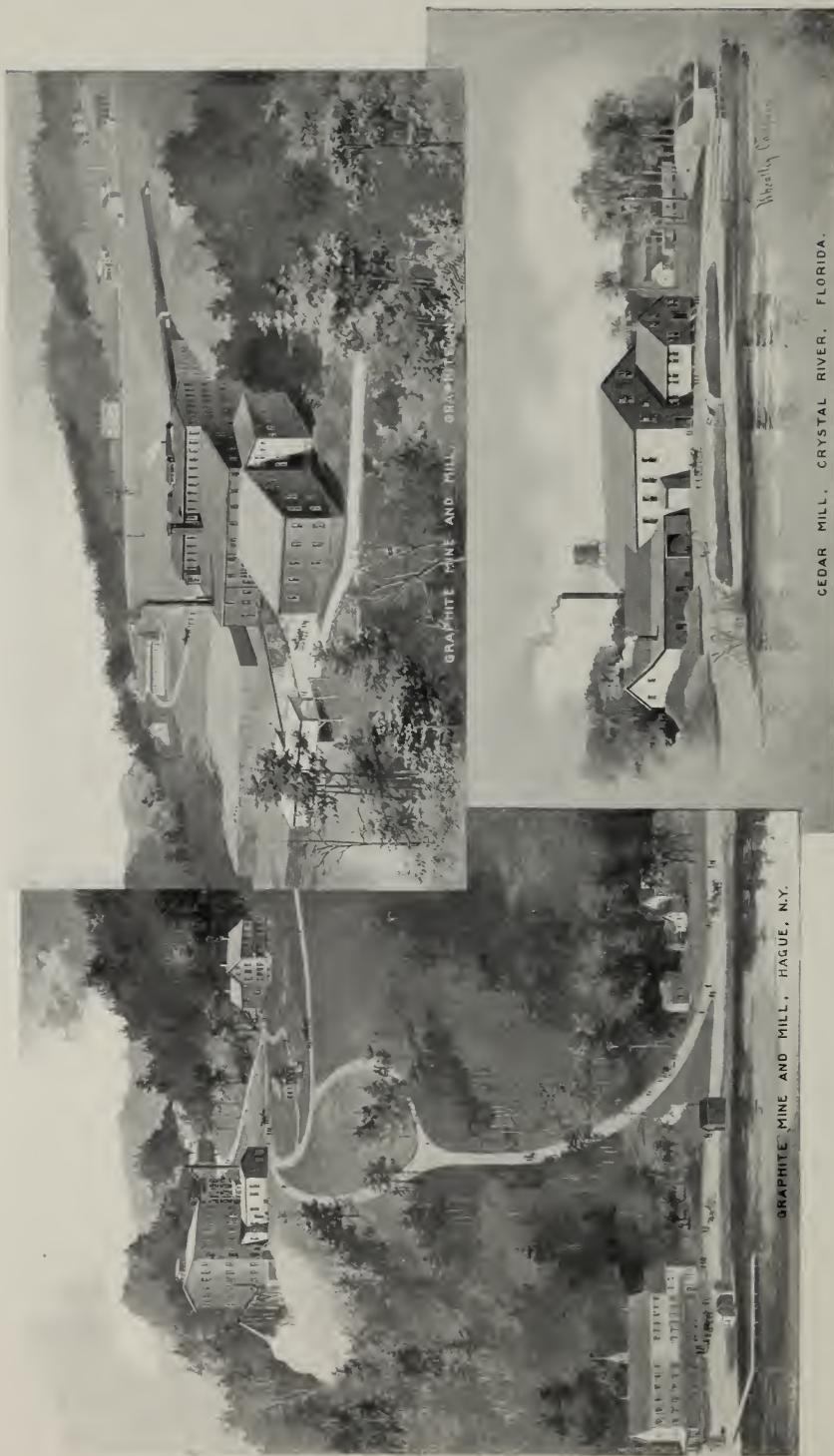
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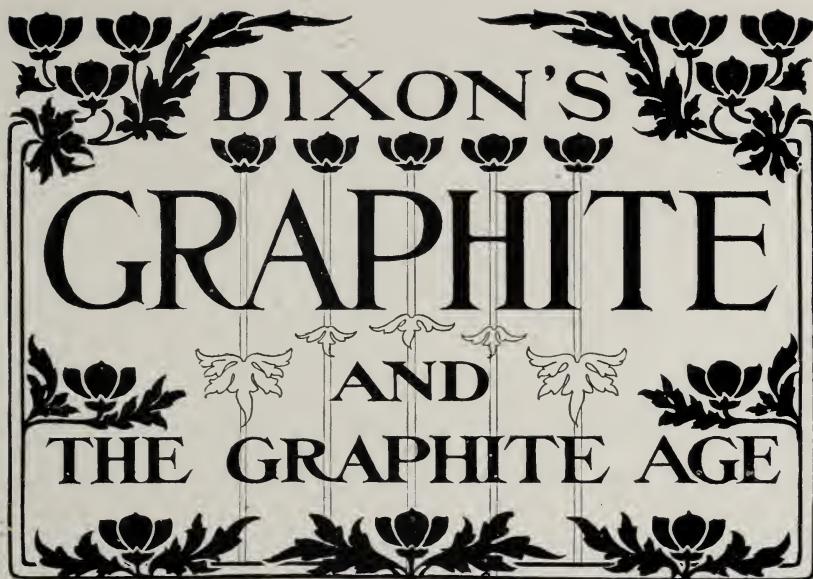
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CEDAR MILL, CRYSTAL RIVER, FLORIDA.

SOME OF THE MINES AND MILLS OF THE JOSEPH DIXON CRUCIBLE COMPANY



INTRODUCTORY

ONE of the most useful materials of commerce and the arts is Graphite.

While of almost universal employment, its real value is yet only beginning to be understood, and its possible uses in the future can hardly be forecast.

Like the diamond, Graphite is a crystallized form of carbon, and may be termed with it a triplet brother of charcoal. It is closely related to the coal family.

Graphite, Plumbago, and Blacklead are three names for what is practically one and the same thing.

Technically, the name "Graphite," however, is generally applied to the crystallized form, such as Dixon's Ticonderoga Flake Graphite; and the names "Plumbago" and "Blacklead" to the "amorphous" varieties, the word "amorphous" meaning uncristallized, or of no determinate shape.

Different varieties of Graphite, both amorphous and flaked, are obtained from various mines in Ceylon (India), Germany, Bulgaria, Mexico, and Ticonderoga, New York State, U. S. A. The latter are the mines of the Joseph Dixon Crucible Company, and are justly cele-

brated for the unrivalled quality of thin-flake Graphite, of which they produce many thousands of tons annually.

The great value and the universal use of Graphite in the arts and manufactures are the result of its combination of unique and peculiar properties.

Thus, pure Graphite is insoluble, infusible, involatile. It is combustible, combining with oxygen to form carbon dioxide or monoxide. It is a good conductor of heat and electricity. It has a peculiar smoothness and lubricating property not possessed by any other solid substance. In ordinary use it is practically unaffected by heat or cold, acids or alkalies.

It is these and other properties which have led to the recognition of the proper variety of Graphite as the best material known to commerce for lubricating purposes, and not alone that, but as a material for the manufacture of crucibles, as a paint pigment, for "lead" pencils, etc., etc.

Graphite is one of man's most useful assistants in the carrying on of the "World's Work." This is, indeed, the Graphite Age.

Ordinary Graphite, as it is obtained in the mines, contains from fifty per cent. to sixty per cent. of silica, sulphur, and other impurities, which can only be got rid of by complicated processes of refining and purifying, requiring expensive machinery, skilful manipulation, long experience, and scientific training.

These requirements have all been fulfilled in the manufacture of Dixon's Graphite productions. The proper Graphite for the purpose is selected, and the uses for which the goods are intended are never lost sight of.

Impure Graphite is often taken for pure.

Even experts have been deceived by appearances. Nothing but chemical tests can be relied on, or the guarantee of a good name—Dixon's.

The Joseph Dixon Crucible Company are the largest miners, refiners, and manufacturers of Graphite in the world. They are also the oldest and most experienced, the founder of the Company having commenced the manufacture of Graphite Crucibles and Stove Polish in 1827, nearly three-quarters of a century ago.

All the Graphite used in Dixon's world-famous Graphite products is mined or prepared by the Dixon Company, and their guarantee has therefore behind it the fullest knowledge and experience that is obtainable in the business.

In short, they guarantee what they know; they know what they guarantee.

It is this knowledge and experience, also, which enables them to choose from the various varieties of Graphite obtainable throughout the world the kind best suited to the purposes for which it is required, and then to refine, perfect, and, if necessary, combine it with other varieties so as to render the finished product the best that is obtainable for the uses to which it is to be put.

Dixon's Graphite, therefore, represents Dixon's experience in Graphite preparation and adaptation to modern every-day use.

Dixon's Graphite products are to be relied upon. They are the result of experience; they do not invite, but obviate, experimentation on your part.

They are standard.

SPECIAL INFORMATION

We are always glad to hear from those who wish to know more about Dixon's Graphite.

We publish a number of interesting pamphlets on its special uses. One on Graphite Lubrication, one on Graphite Paint, one on Graphite Crucibles, one on Graphite Facings, one on Graphite for Electricians, etc., etc.; and new ones are appearing every little while. We shall be pleased to send any in which you are interested free to your address. (See list on separate sheet; or write for revised list.)

Our Department of Information answers all specific inquiries not covered in this catalogue or in our other publications.

For information about Graphite write to headquarters.

JOSEPH DIXON CRUCIBLE CO.,

JERSEY CITY,

U. S. A.





DIXON'S PLUMBAGO CRUCIBLES

IN 1827, after careful research and experiment, Joseph Dixon commenced the manufacture of Plumbago or Blacklead Crucibles.

In a short space of time he had revolutionized the crucible business.

To-day all Plumbago Crucibles, wherever made, are made after imitations of the formulæ and methods invented by the father of the plumbago crucible business, Joseph Dixon.

Having at our disposal the full records of experiments, formulæ, and methods in use during the past seventy-four years, we have employed these to best advantage, constantly improving and perfecting the original methods and formulæ, with a view to keeping Dixon's Crucibles where they belong, viz.: in the very first rank.

Their reputation has remained with them all these years, and they are to-day, as they always have been, admittedly the best and most reliable crucibles manufactured.

No one can afford to experiment with crucibles unless at a very costly risk.

One poor crucible may mean the loss of much money and valuable time.

Our experimenting is done before the crucible is shipped to you.

Very careful tests are employed to obtain a uniform standard of excellence.

Our plant for the manufacture of Plumbago Crucibles is the largest, most up-to-date, most scientific, and most perfectly fitted-up in the world.

It will pay you to avail yourself of our experience, reputation, and exceptional facilities, when in the market for reliable and perfect crucibles.

JOSEPH DIXON CRUCIBLE CO.,

JERSEY CITY,

U. S. A.

INTRODUCTION TO ILLUSTRATIONS

The illustrations in the following pages are made direct from photographs of the actual objects.

They serve to give an idea, not only of the various and comparative sizes and shapes of crucibles, melting pots, retorts, etc., we make, but also of the different articles and materials for founders, smelters, engineers, etc., which we manufacture from Dixon's purified and specially prepared Graphite.

We shall be glad to hear from you, if you wish to obtain special articles for special uses, and, as we have a separate department for this work, we shall be pleased to submit estimates from sketches or specifications furnished us by you, or suggested, on request, by ourselves.

In other words, our desire is not only to sell you our goods, but also to help you solve problems and overcome difficulties which assail you.

Special Crucible Pamphlet on request.

Correspondence invited.



SIZES OF DIXON'S CRUCIBLES AND COVERS

(For prices, see list on separate sheet, or write for same)

Nos.	Holding Capacity, Liquid Measure.			Height Outside.	Diameter at the Top Outside.	Diameter at the Bilge Outside.	Diameter at the Bottom Outside.
	GAL.	QT.	PT.				
0	..	..	..	2	1 $\frac{1}{2}$	1 $\frac{5}{8}$	1 $\frac{1}{4}$
00	..	..	..	2 $\frac{3}{8}$	1 $\frac{7}{8}$	1 $\frac{7}{8}$	1 $\frac{3}{8}$
000	..	..	..	2 $\frac{1}{2}$	1 $\frac{7}{8}$	2 $\frac{1}{8}$	1 $\frac{1}{2}$
0000	..	..	..	3	2 $\frac{3}{8}$	2 $\frac{1}{2}$	1 $\frac{3}{8}$
1	..	..	..	3 $\frac{5}{8}$	3 $\frac{1}{4}$	3	2 $\frac{1}{4}$
2	..	..	..	4 $\frac{1}{2}$	3 $\frac{3}{4}$	3 $\frac{5}{8}$	2 $\frac{3}{4}$
3	..	..	..	5 $\frac{1}{4}$	4 $\frac{1}{4}$	4 $\frac{1}{8}$	3
4	..	..	..	5 $\frac{5}{8}$	4 $\frac{5}{8}$	4 $\frac{1}{2}$	3 $\frac{1}{4}$
5	..	..	..	6	4 $\frac{7}{8}$	4 $\frac{3}{4}$	3 $\frac{1}{2}$
6	..	1	..	6 $\frac{1}{2}$	5 $\frac{1}{4}$	5 $\frac{1}{8}$	3 $\frac{7}{8}$
7	..	1	$\frac{1}{4}$	6 $\frac{3}{4}$	5 $\frac{1}{2}$	5 $\frac{1}{2}$	4
8	..	1	$\frac{1}{2}$	7 $\frac{1}{4}$	5 $\frac{3}{4}$	5 $\frac{7}{8}$	4 $\frac{1}{4}$
9	..	1	$\frac{3}{4}$	7 $\frac{5}{8}$	5 $\frac{7}{8}$	6 $\frac{1}{4}$	4 $\frac{1}{2}$
10	..	1	1	8	6	6 $\frac{1}{2}$	4 $\frac{3}{4}$
12	..	2	..	8	6 $\frac{1}{4}$	6 $\frac{3}{4}$	5 $\frac{1}{8}$
14	..	2	1	8 $\frac{1}{2}$	6 $\frac{7}{8}$	7 $\frac{3}{8}$	5 $\frac{1}{2}$
16	..	2	1	8 $\frac{3}{4}$	7	7 $\frac{1}{2}$	5 $\frac{1}{2}$
18	..	3	1	9 $\frac{5}{8}$	7 $\frac{1}{2}$	8	5 $\frac{3}{4}$
20	1	..	..	10 $\frac{1}{4}$	7 $\frac{7}{8}$	8 $\frac{3}{8}$	6
25	1	..	1	10 $\frac{1}{4}$	8	8 $\frac{1}{2}$	6
30	1	1	1	11 $\frac{1}{4}$	8 $\frac{5}{8}$	9 $\frac{1}{4}$	6 $\frac{5}{8}$
35	1	2	1	11 $\frac{5}{8}$	9 $\frac{1}{4}$	9 $\frac{3}{4}$	7
40	2	..	..	12 $\frac{3}{8}$	9 $\frac{1}{4}$	10 $\frac{1}{4}$	7 $\frac{1}{2}$
45	2	1	..	13	9 $\frac{3}{4}$	10 $\frac{1}{2}$	7 $\frac{1}{2}$
50	2	3	..	13 $\frac{3}{8}$	10 $\frac{1}{8}$	11 $\frac{3}{8}$	8
60	3	..	..	14	10 $\frac{1}{2}$	11 $\frac{5}{8}$	8
70	3	1	..	14 $\frac{5}{8}$	10 $\frac{3}{4}$	12	8 $\frac{1}{4}$
80	3	2	1	15 $\frac{1}{8}$	11 $\frac{1}{4}$	12 $\frac{3}{8}$	8 $\frac{1}{2}$
90	4	..	..	15 $\frac{3}{4}$	11 $\frac{5}{8}$	12 $\frac{1}{2}$	8 $\frac{7}{8}$
100	4	2	1	16 $\frac{1}{8}$	11 $\frac{7}{8}$	13 $\frac{1}{8}$	9 $\frac{1}{4}$
125	4	3	1	16 $\frac{1}{2}$	12 $\frac{1}{2}$	13 $\frac{3}{4}$	9 $\frac{1}{2}$
150	6	3	..	18 $\frac{1}{2}$	13	14 $\frac{5}{8}$	10 $\frac{1}{2}$
175	7	3	1	19 $\frac{5}{8}$	14 $\frac{1}{4}$	15 $\frac{3}{4}$	10 $\frac{3}{4}$
200	9	3	1	20 $\frac{1}{4}$	14 $\frac{7}{8}$	16 $\frac{1}{2}$	11 $\frac{1}{4}$
225	10	1	1	20 $\frac{5}{8}$	15 $\frac{1}{4}$	16 $\frac{3}{4}$	12 $\frac{1}{2}$
250	10	3	..	20 $\frac{3}{4}$	15 $\frac{1}{4}$	17	11 $\frac{1}{2}$
275	11	3	..	22 $\frac{3}{8}$	14 $\frac{3}{4}$	16 $\frac{3}{4}$	12 $\frac{1}{2}$
300	12	2	..	22	16 $\frac{1}{4}$	17 $\frac{1}{2}$	12 $\frac{1}{2}$

CRUCIBLES FOR FILE TEMPERING.

60	..	..	..	17 $\frac{1}{4}$	9	9 $\frac{1}{4}$	8
70	..	..	..	20 $\frac{1}{2}$	9	9 $\frac{1}{4}$	8
80	..	..	..	22 $\frac{1}{4}$	9	9 $\frac{1}{4}$	8
100	..	..	..	24 $\frac{1}{2}$	9	9 $\frac{1}{4}$	8



SCENE IN THE DIXON FACTORY—MAKING A RETORT



DIXON'S PLUMBAGO RETORTS

DIXON'S STIRRER-HOLDERS



The illustration shows a simple, time-saving device for using Graphite Stirrers.

It is the simplest yet. A twist of the wrist fastens or releases the grip. All you have to do is to insert the stirrer between the jaws and twist the handle. The jaws close tight, and the grip will not loosen until you untwist the handle again.

Simple. Efficient. Practical.

Made of malleable iron.

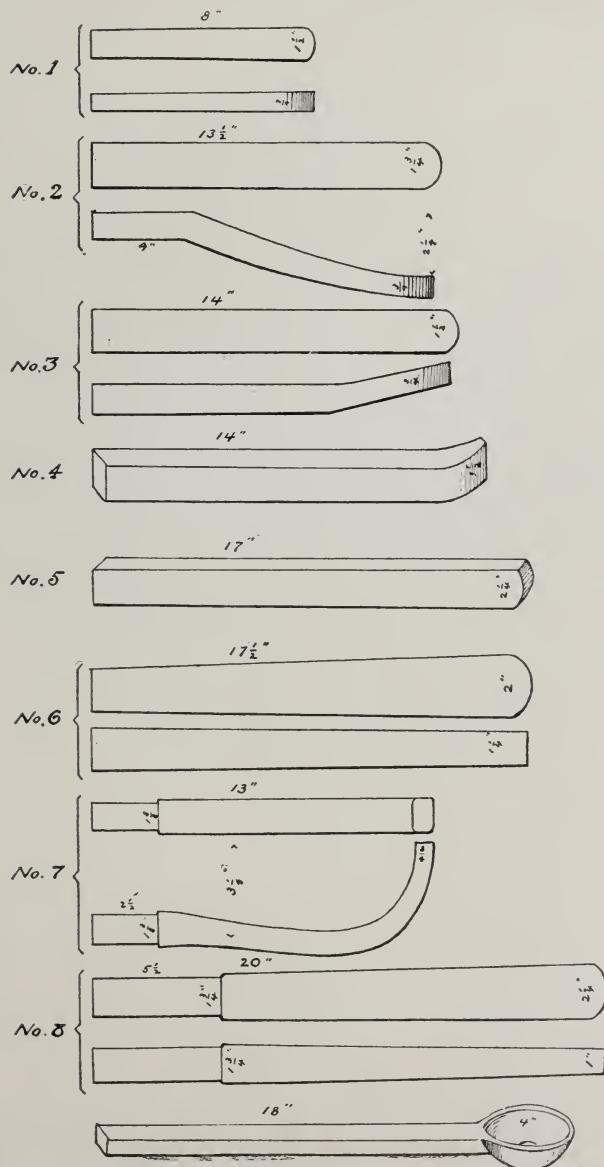
Write for price list.



DIXON'S GRAPHITE STIRRERS
FOR MIXING AND SKIMMING ALLOYS

The Butts of these Stirrers are $1\frac{1}{4}'' \times 1\frac{1}{4}''$

(For Holder, see page 16)



DIXON'S GRAPHITE BOXES AND COVERS

(For prices, see list on separate sheet, or write for same)

INSIDE DIMENSIONS

No.	Long.	Wide.	Deep.	Wall.	Kind of Cover.
	Inch.	Inch.	Inch.	Inch.	
1	3 $\frac{1}{4}$	1 $\frac{1}{8}$	4 $\frac{1}{4}$	$\frac{5}{8}$	Flat
3	3 $\frac{3}{4}$	1 $\frac{1}{2}$	1	$\frac{1}{2}$	Flat
4	3 $\frac{1}{2}$	1 $\frac{1}{4}$	1 $\frac{1}{2}$	$\frac{1}{2}$	Flat
5	4	2 $\frac{1}{8}$	1	$\frac{1}{2}$	Flat
6	4 $\frac{1}{2}$	3 $\frac{3}{4}$	2 $\frac{3}{4}$	$\frac{5}{8}$	Flat
7	4 $\frac{1}{4}$	2	7 $\frac{1}{2}$	$\frac{5}{8}$	Flat
15	6	5	8 $\frac{1}{4}$	$\frac{3}{4}$	Flat
16	7 $\frac{1}{4}$	5 $\frac{1}{4}$	8	$\frac{5}{8}$	Flat
17	7 $\frac{3}{4}$	3 $\frac{1}{4}$	9 $\frac{1}{4}$	$\frac{3}{4}$	Rib
18	8	3	2 $\frac{5}{8}$	$\frac{1}{2}$	—
19	8	3 $\frac{1}{8}$	7 $\frac{1}{2}$	$\frac{3}{4}$	Rib
* 20	8 $\frac{1}{2}$	6	6 $\frac{1}{2}$	$\frac{5}{8}$	Base
* 21	8 $\frac{3}{8}$	6	7 $\frac{3}{4}$	$\frac{13}{16}$	Flat
* 29	10	5 $\frac{3}{4}$	8 $\frac{1}{2}$	1 $\frac{1}{8}$	Irreg.
* 30	9 $\frac{1}{4}$	9 $\frac{1}{4}$	11	1	Flat
31	10 $\frac{1}{4}$	6	8	$\frac{7}{8}$	Flat
* 32	10 $\frac{3}{8}$	4 $\frac{1}{8}$	8 $\frac{3}{8}$	1	Rib
33	10 $\frac{1}{2}$	4 $\frac{3}{4}$	9 $\frac{3}{4}$	$\frac{7}{8}$	Flat
.34	10 $\frac{1}{2}$	10 $\frac{1}{2}$	4	$\frac{3}{4}$	—
* 35	11	5	10	$\frac{7}{8}$	Base
* 40	12 $\frac{1}{4}$	7 $\frac{1}{2}$	8 $\frac{7}{8}$	$\frac{3}{4}$	Flat
* 42	13 $\frac{1}{8}$	5 $\frac{3}{4}$	7 $\frac{5}{8}$	$\frac{3}{4}$	Flat
* 43	12	7	4 $\frac{3}{4}$	$\frac{7}{8}$	Flat
60	14	6	8	$\frac{7}{8}$	Rib
71	17 $\frac{3}{4}$	8 $\frac{1}{2}$	4 $\frac{3}{8}$	$\frac{7}{8}$	—
72	17 $\frac{1}{2}$	8 $\frac{1}{2}$	6	—	—
73	12	6	5 $\frac{3}{4}$	$\frac{7}{8}$	—
74	8 $\frac{1}{4}$	8 $\frac{1}{4}$	8 $\frac{3}{4}$	—	—
75	5 $\frac{1}{4}$	5 $\frac{1}{4}$	12	1 $\frac{1}{4}$	—

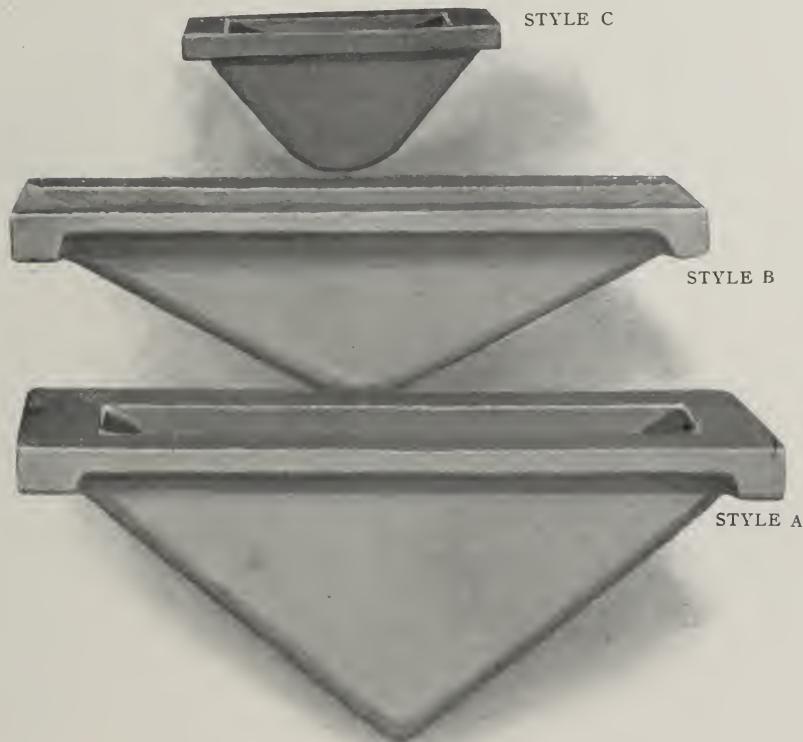
* Stock numbers. The other numbers can readily be made up to order from patterns on hand.

DIXON'S BRAZING CRUCIBLES

(*For Liquid Brazing*)

The following illustrations show a few of the various shapes of Brazing Crucibles we make. We carry a large stock of ordinary and rectangular-shaped crucibles which we can ship on receipt of order.

Any size or shape made on request.



DESCRIPTIONS AND SIZES

(*For prices, see list on separate sheet, or write for same*)

STYLE A—Dixon's Regular Brazing Crucible. Inside measurements: $23\frac{1}{2}$ inches long, 6 inches wide, 9 inches deep. It has a $2\frac{1}{4}$ -inch flange which holds it in place in the furnace.

STYLE B—Dixon's New Brazing Crucible, made especially for the Fulton Furnace. Inside measurements: $27\frac{1}{2}$ inches long, $6\frac{1}{2}$ inches wide, $5\frac{1}{2}$ inches deep.

STYLE C—This Brazing Crucible is from a later pattern, and can be furnished where desired. Inside measurements: 10 inches long, $6\frac{3}{4}$ inches wide, $5\frac{1}{4}$ inches deep. Flanges $2\frac{1}{2}$ inches wide. Outside height, 7 inches.



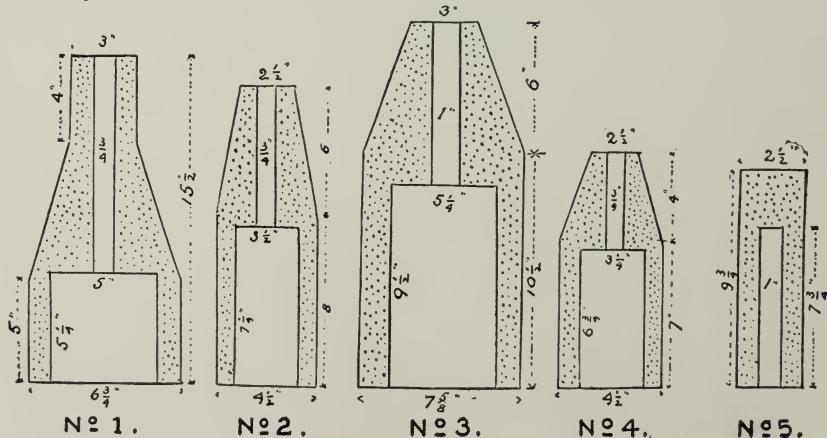
GROUP OF BRAZING CRUCIBLES

DIXON'S GRAPHITE PHOSPHORIZERS

(Or Phosphorus Chargers)

A Phosphorus Charger, or Phosphorizer, is a device of plumbago crucible material, which is used for the introduction of phosphorus into the molten metal in the manufacture of phosphor-bronze.

The sectional illustrations herewith show five standard shapes made by us.



PROCESS

An iron holding rod is securely fastened in the hole running to the top. The phosphorus, carefully wrapped, to prevent spontaneous ignition, is placed in the lower chamber, and the phosphorizer is then plunged into the molten metal.

Much trouble is often experienced by metallurgists and founders who employ phosphorizers of imperfect material, the extreme and sudden change of temperature, caused by plunging the phosphorizer into the molten bronze, giving much trouble with breakage.

Graphite is the only material capable of resisting the sudden and intense heat, and Dixon's Graphite is the kind preferred by all experienced workers, for its absolute uniformity, reliability, and almost perfect heat-resisting properties.

By using only Dixon's Graphite Phosphorizers, you will save yourself money and time.

The demand for phosphor-bronze in the manufacture of piston rings, valve covers, machine castings, pinions, cog wheels, propeller screws, hydraulic press and pump barrels, piston rods, screw bolts for steam cylinders, hardware, etc., is on the increase, and Dixon's Phosphorizers offer founders who wish to supply this demand the simplest, most reliable, and least expensive method of turning out a perfect product.



GROUP OF PHOSPHORIZERS

DIXON'S GRAPHITE REFRACTORY BRICKS

These bricks are in constant and increasing use for Furnaces.

Their great heat-resisting properties make them unquestionably the best furnace lining made.

We take special pains in their manufacture, and guarantee them.

Made to order only, to measurements and size required.

Estimates on request.



A GROUP OF DIXON "SPECIALS"



REGULAR AND SPECIAL PATTERNS OF GRAPHITE CRUCIBLES, MUFFLES,
ETC.

Estimates furnished from sketch or pattern for any article that can be made from crucible material

DIXON'S GRAPHITE SPECIALTIES FOR FOUNDRYMEN, METAL WORKERS & OTHERS

DIXON'S ANTI-FLUX GRAPHITE

(*For Brazing*)

This Graphite is especially prepared in powder form with a view to the removal of all fusible constituents. It is unaffected by the most intense heat, and is equally useful for either flame or liquid brazing. It may be mixed with turpentine in which some gum such as rosin has been dissolved, or with a dilute shellac varnish.

This mixture dries quickly, and leaves the graphite firmly adhered to the metal, saves all filing, and leaves work clean and smooth.



GROUP OF DIXON'S GRAPHITE MELTING AND TEMPERING POTS AND COVERS



DIXON'S PLUMBAGO FACINGS

THE USES OF GRAPHITE FACINGS

GRAPHITE, or Plumbago, as a facing, is put on the surface of a mold for the purpose of preventing adhesion of the metal to the sand of which the mold is composed.

A GRAPHITE FACING SAVES CLEANING

of the castings, and gives them a far better appearance.

When a properly prepared graphite facing is used, the surfaces are very much easier to work when the castings are sent to the machine shop.

Wherever the molten metal burns into the sand of the mold it causes hard spots on the castings, which quickly dull the edges of cutting tools.

The reason why graphite does this is as follows :

GRAPHITE IS ONE OF THE FORMS OF CARBON

and is a combustible material, and when the molten metal is poured into the mold, the air in the mold and the air carried in by the stream of melted metal furnish oxygen enough to bring about a certain amount of combustion, forming a film of gas between the metal and the mold.

When a drop of water falls upon a hot stove it rolls about; the water itself never comes in contact with the hot surface of the stove, being separated by a film of vapor.

It is precisely a similar condition which exists in a mold where a graphite facing is used. The outer portion of the facing begins to burn and a film of gas forms between the facing and the iron. This effectually

PREVENTS ANY ADHESION OF THE METAL

to the sand, and just as long as this gas film exists no adhesion can possibly occur.

A proper facing will adhere perfectly to the sides of a mold, and

will burn and form gas in a slow and regular manner—that is, burn just enough to furnish this little film of gas referred to above. We want to form the gas, but to form only the least possible amount of it; and, at the same time, this gas must be formed during the entire time that the metal is in the fluid condition.

CHEAP FACINGS BURN TOO FAST

Another point following this is the fact that two bodies cannot occupy the same space at the same time, so that in using a cheap facing which burns fast and gives out a large amount of gas, this gas is liable to become pocketed inside of the mold, and so prevent the molten iron from filling the mold. This is likely to cause what are called "cold shuts" in castings. The ordinary

CHEAP COAL FACINGS ARE VERY APT TO

act in this way. Some facings are not sufficiently adhesive to the sand mold surface. The hot iron, coming in contact with them, immediately dries out the sand, and, if an unsuitable facing has been used, it will run before the metal and leave the mold surface bare. This is why the Dixon Company make such a variety of facings.

The conditions which exist in foundries are so various that it would be quite impossible to make one facing suitable for all purposes.

From the above description it will be noted that a facing possesses two principal qualifications: adhesion and combustibility; and as to whether a facing is good or poor, depends entirely on whether these two qualities are properly balanced or not. A facing which runs before the metal is no better than one which adheres but burns up before the metal chills.

It is with an eye to these points that the Dixon Company manufactures its facings. Having at their command all the varieties of Graphite known, they are in a position to make changes in mixtures other than those of percentages merely.

DESCRIPTION OF DIXON'S FACINGS

THE following is a short description of the facings made by the Dixon Company. These are designed to cover all facing requirements. No matter what the conditions are, the facing is here to meet them. We shall point out the qualities of each and the work for which each is best suited.

DIXON'S NO. 659

FOR FLAT OR PLATE MOLDING

This facing is principally used for Flat or Plate Molding, though sometimes used as "blackwash." For the former purposes it has been used by the foremost plate molders of the East for years with the greatest success. It is extremely high in binder and sufficiently refractory for all light work. The texture of the surfaces of the castings made by its use cannot be excelled.



SCENE IN THE DIXON FACTORY—LOADING UP A KILN

DIXON'S NO. 604

FOR GREEN SAND WORK

This facing has qualities lying between the No. 659 facing and those intended for green sand work. It may be used for Flat Molding of quite heavy character, or, when the sand is rather dry, it may be used on green sand work. But its principal use is when mixed with charcoal, as a dry sand and loam wash. For this purpose it has no equal; it has been used for years by the leaders in machine tools and engine works.

DIXON'S NO. 2441

FOR HIGH-GRADE GREEN SAND FACING

In this facing the Graphite used is the Ticonderoga brand, and is the most refractory Graphite that exists. What we mean by refractory in this case is, that if a certain amount of Ticonderoga Graphite was put in an open crucible and burned until the carbon was all exhausted, it would require two or three times as much time as would be required to burn the same amount of Ceylon Plumbago.

Dixon's No. 2441 is specially prepared to meet the requirements of a strictly high-grade green sand facing, where the quality of the finished casting is the thing sought after. This facing slicks perfectly, but requires a little more slicking and rubbing than No. 6726. It has not quite so much "binder." Therefore it may be used in molds where the sand is a little more damp than the average. It may be stated here in a general way that the damper the molding sand, the less percentage of "binder" is required in the facing.

DIXON'S NO. 6726

SIMILAR TO, BUT HEAVIER THAN, NO. 2441

The same Ticonderoga Graphite is used in this facing as in No. 2441, but it is heavier—that is, it has more binding material in it. It will adhere to a drier surface than No. 2441. The two facings are somewhat the same, viz.: No. 2441 has more graphite and less binding material, but No. 6726 has more binding material and less graphite.

DIXON'S NO. 5947

A GOOD ALL-ROUND FACING

Ceylon Graphite is used in the manufacture of this facing, so it is not quite so refractory as No. 2441 and No. 6726.

It adheres well and gives a good, smooth surface to the casting.

The color will be somewhat grayer than if made with any of the other facings—a good all-round facing.

DIXON'S NO. 5948

A FACING MORE REFRACTORY THAN NO. 5947

Ceylon Graphite is also used in this facing. It is more refractory than the No. 5947, and not quite so adhesive.

The color of the castings will be darker than if the No. 5947 is used.

DIXON'S NO. 5772

A GOOD SERVICEABLE FACING

This is a low-grade facing, high in binding material, adhesive and not apt to run before the metal, but not so good where a fine surface is required. The carbon in it may, under certain conditions, become exhausted before the metal is solidified.

For lighter work, where extremely fine surfaces are not absolutely required, it is a very serviceable facing.

DIXON'S NO. 605 CORE WASH

This Core Wash has been sold continuously for the past thirty-five years, and has given the best of satisfaction. It is used in precisely the same manner as any Core Wash.

In some cases it may be advisable to add a small amount of charcoal to the wash, but only where cores are made very tender.



DIXON'S GERMAN BLACK LEAD

(Amalien Mine No. 1. Double Hammer, Anchor Brand)

This is the most uniform and reliable brand of "black lead" imported from Germany. For many years its reputation has been of the very highest. It is used very largely in compounding foundry facings and stove polishes. In original casks of 1,000 lbs. each, or in packages of 25 to 300 lbs.

DIXON'S CRUCIBLE MIXTURE

(Made of Dixon's Graphite and Crucible Clay in Proper Proportions)

USEFUL FOR MENDING, CEMENTING, PATCHING, ETC.

This is the foundryman's *vade mecum*.

A supply should always be kept on hand, as five cents' worth, applied at the proper time, may save a dollar's worth of time and material.

In Brass Foundries.—Will patch up worn-out furnace linings.

Better than fire-clay in setting new linings. Stands heat, wear and tear. Puts off the day of new firebrick. Represents economy in time and money.

In Iron Foundries.—For lining up ladles, or for mixing with ordinary clay as a tap-hole mixture.

In Gas Works.—For a cement on retort covers. For a refractory mixture around the retort, to lengthen its life.

In Boilers.—For patching fire-brick in the fire-box. Also as a mortar in laying new fire brick. Saves its cost twenty times over.



DIXON'S GRAPHITED LUBRICANTS

MODERN LUBRICATION

A GREAT deal of study has been given, in the last few years, to the subject of Lubrication.

Tons of matter have been written and printed about it, but it has practically all simmered down to one proposition, which we give in the words of a prominent engineer :

“The more solid the lubricant that can be used, the better the lubrication.”

This being so, Dixon's Ticonderoga Flake Graphite, being the most perfect solid lubricant known, is daily being adapted to new lubricating uses, and is, at the present time, alone or in combination with oil or grease, the most universally used lubricant in the world.

It is proper to mention the fact, which will be corroborated by all competent authorities, that the correct and only form of Graphite which ensures perfect lubrication is Flake Graphite.

Plumbago or Black Lead—the amorphous varieties—will not do.

And as Ticonderoga Graphite is the only Graphite mined in the world from which an absolutely uniform flake can be obtained, no other Graphite than Dixon's should be used for lubricating purposes.

Owners and engineers of expensive machinery cannot afford to experiment.

Dixon's Graphite is tested and guaranteed.

The wonderful lubricating properties of pure flake Ticonderoga Graphite are nowhere more apparent than in the lubrication of the great motors, compound engines, locomotives, and heavy shaft lines and gears, now so much used in the great power plants and mills of the present day.

It is also of special value for lubricating cylinders and valves, rendered difficult of lubrication owing to high pressure and the use of superheated steam.

In mill-steps, turbine steps, gears, heavy bearings, and in all cases where there is very severe friction, the action of Dixon's Graphite is such as to save great wear and waste.

Dixon's Graphite coats all bearing surfaces with an unctuous veneer, fills up all roughness or abrasions, and soon has the surfaces so smooth and shiny that they run together with almost no friction or heating.

Dixon's Graphite will lubricate wood as well as metal, and its uses are almost endless.

Our special pamphlet on *Graphite Lubrication* will be sent to any address on request.

We manufacture no less than thirty different kinds of Graphite Lubricants, adapted to various requirements of different kinds of bearings, a short description of the principal of which we give in the following pages.



DIXON'S
TICONDEROGA AMERICAN
FLAKE GRAPHITE
(*Perfect Lubricant*)

This is the standard dry lubricant of the world.

No factory, engine room, locomotive cab, or work shop of any kind, can afford to be without it.

As put up, in our regular packages (from 1-lb. cans to barrels of 350 lbs.), it represents the degree of fineness, or size of flake, best adapted to everyday use. The size is known as No. 1.

A finer flake is, however, also kept in stock for special requirements, known as No. 2.

Larger or smaller flake than these two sizes can be furnished to order, when desired.

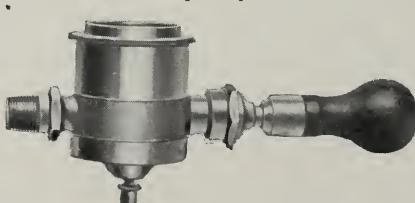
Thus, a coarser flake is used by some for cylinders of blowing engines, etc., and a finer flake is used for the valves of Westinghouse Air Brakes, etc.

Complete information and prices mailed on application.

HOW TO FEED DIXON'S GRAPHITE IN ENGINE CYLINDERS

The simplest, but perhaps not the best way, is to use it in the regular sight-feed oil lubricators, with tallow cup. It will feed through a very small opening without choking or clogging. A tea-spoonful can be put in with the oil twice a day, and will need no further attention. The flakes of graphite are carried over one by one to the cylinders and form a coating of perfect lubricating properties.

A better and more perfectly mechanical way, however, is to use a pump, as per illustration. This pump can be attached to any engine with excellent oil and labor, running. We these pumps See price list. cylinders, Dix- generally intro- the relief valves, prevents or instantly stops "groaning," and shows immediate results in the easy handling of the lever.



OIL FEED PUMP

results. It saves and makes easy can furnish when desired. For locomotive on's Graphite is duced through where it pre-

The best form of Dixon's Dry Flake Graphite for engine cylinder lubrication is No. 2, the more finely pulverized form.



GRAPHITE PRODUCTS



MAIN WORKS AND GENERAL OFFICES, JERSEY CITY, U.S.A.

Vanderbilt Company



GRAPHITE WORKS AT TICONDEROGA, N.Y.

JOSEPH DIXON CRUCIBLE COMPANY, JERSEY CITY, U.S.A.

RAILROAD ENGINEERS

are especially enthusiastic over the advantages of the use of Dixon's Dry Flake Graphite.

It prevents and cools hot pins and journals, makes stiff, hard-running parts work smoothly, prevents dry valves, increases efficiency of air brakes, and generally adds from 10 to 30 per cent. to the working facilities, as well as to the life of the engine.

It is "Cab Comfort," and saves work as well as power.

Engineers who are out for records should see that a can of Dixon's Dry Flake Graphite forms a regular part of their equipment.

Railroads who wish to increase efficiency, save wear and tear, and lengthen the life of their rolling stock, should see that Dixon's Graphite is in every cab, and should instruct trainmen to use freely.

Pamphlet giving fuller particulars as to its advantages to railroads mailed free on request.

DIXON'S SPECIAL GRAPHITE

(*Trade No. 635*)

This form is specially prepared for lubricating Gas Engine Cylinders, Scientific Instruments, light and close-fitting Bearings, Spindles and Bobbins in textile mills, for the manufacture of lubricants for Bicycle Chains and Bearings, etc.

It is a finer flake than the regular Dixon Flake Graphite, and for use in all cases where this latter is considered too coarsely ground.

Dixon's Special Graphite can be used dry, or mixed with water, alcohol, benzine, oil, vaseline, tallow, or other grease, according to requirements.

It increases, by 10 to 25 per cent., the lubricating qualities of any oil or grease.

Put up in 1-lb. paper and 5-lb. tin cans, also in bags, kegs, and barrels of from 25 to 200 lbs. See price list.



DIXON'S SPECIAL (PIANO) GRAPHITE

(*For Wood Surfaces*)



This is especially made for the purpose of lubricating wood surfaces.

Graphite is the only lubricant that will prevent friction between two wood surfaces, and has been exclusively used for this purpose for many years by *Piano* and *Organ* manufacturers and others.

Dixon's Special Graphite is the finest Graphite Product for the purpose that can be obtained, and is in use in the largest and finest Piano and Organ works in the world.

It is absolutely free from grit.

Put up in 1-lb. paper cans, 3 dozen in a case.

DIXON'S POT-LEAD

(*Black Lead for Yacht Bottoms*)

A pure Graphite, finely ground to a uniform grain, for use as a frictionless coating for yacht bottoms.

Increases speed. Protects the bottom.

In great demand among yacht owners who are anxious to obtain the maximum of speed from their boats.

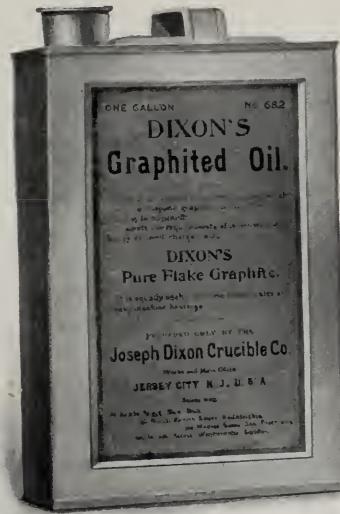
Used by members of most of the prominent Yacht Clubs in this country and abroad.

In 1 to 10-lb. cans.



DIXON'S GRAPHITED OILS AND GREASES

DIXON'S GRAPHITED OIL



DIXON'S OILED GRAPHITE

(Trade No. 7847)

This is especially recommended for steam cylinders, where very little oil is desired. Also for cylinders and valves worked at high pressure and with superheated steam, where trouble is experienced with ordinary lubricants.

Dixon's Oiled Graphite is made of fine Flake Graphite, carefully and thoroughly ground in the best lubricating oil, thereby coating every flake of Graphite with a film of oil.

Where indicated, its lubricating proportions are unequalled.

In 5 to 50-lb. cans or boxes, and kegs or barrels of 100 and 350 lbs. See price list.



DIXON'S ELECTRIC MOTOR COMPOUND

(Trade No. 688)

This is a fine lubricating compound, specially prepared for the enclosed gears of electric automobiles.

In use by the principal automobile companies of this country and abroad.

In 10 to 350-lb. containers. See price list.

DIXON'S GRAPHITE CUP GREASE

(In 6 Degrees of Hardness)

These greases have all the good qualities of the best mineral oils, and, in addition, more lasting and better lubricating properties, caused by the incorporation of pure Flake Ticonderoga Graphite.

They are numbered according to hardness, Nos. 0, 1, 2, 3, 4, 5, respectively; No. 0 being the softest, about like soft vaseline, No. 5 the hardest, about like tallow, but with more cohesiveness.

The softer grades are for use in the lubrication of light, high-speed spindles, the heavier for work at slow speed and high pressures, where they are guaranteed to stay in place and serve their purpose better than any other lubricant.

All these greases can be fed through compression cups, the harder grades requiring, of course, greater compression and larger openings.

In 10 to 100-lb. packages. See price list.

DIXON'S GRAPHITE GREASE

(Standard)

Superior to plain grease for gears, loose-fitting journals and bearings, or wherever conditions allow the use of ordinary stiff grease.

Lasts longer and lubricates better than the finest ordinary lubricating grease.

Will feed nicely through a tallow cup.

In 10 to 400-lb. containers. See price list.

DIXON'S GRAPHITE GREASE

(Waterproof)

For all gears, chains, cables, wire ropes, etc., exposed to the action of water, and wherever a lubricant is needed that even running water will not wash off.

Unequalled for railroad switches, interlockings, etc.

Of special value in mines, quarries, etc.

A perfect grease lubricant with peculiarly strong adhesive properties.

In packages and barrels of from 10 to 500 lbs. Write for price list.



SCENE IN THE DIXON FACTORY—INTERIOR OF A KILN

DIXON'S GRAPHITE GEAR GREASE

Specially prepared for gears. Of good body and great durability and smoothness.

For gears coming in contact with moisture or water, Waterproof Grease is indicated.

In packages of 10 to 400 lbs.

DIXON'S RAILROAD GREASES

Car Box Grease.—For boxes, engines, freight cars, passenger cars, ore cars, coal and coke cars, and of special value in cooling hot boxes.

Curve Grease.—For Trolley and Horse Car curves and switches. A cheap, durable, reliable lubricant, of great value to car companies.

Barrels of 375 to 425 lbs.

Special Signal Grease.—Specially prepared *to order*, to meet all requirements of railroad companies for lubricating switches, interlockings, and other devices in signal systems.

No matter the grease that is used, the addition of Dixon's Pure Graphite increases its efficiency.

Correspondence solicited.

Prices on application.

DIXON'S GRAPHITED WOOD GREASE.

This is a unique and perfect Gear Lubricant for electric railway cars.

It does not cake or drip, but keeps the gears constantly and thoroughly lubricated without dirt or trouble.

It prevents noise caused by worn gears.

It is the most perfect lubricant for the purpose.

Barrels of 325 to 375 lbs.

Write for price list.

DIXON'S GRAPHITE AXLE GREASE



The main ingredient of Dixon's Axle Grease is Dixon's Graphite. The grease is mixed with it, to hold it and distribute it over the bearing surfaces.

Dixon's Axle Grease goes farther than any other axle grease. Lasts longer. Lubricates better. Wastes less.

Dixon's Axle Grease is not affected by heat or cold. Will not gum. Will not run in hot weather nor harden in cold. If at any time it seems to be stiff or dry it can be worked into a soft paste with a knife in a few minutes.

Dixon's Axle Grease is pure Graphite and grease. Contains no mica, silica, or other scaly, gritty substance.

Will not eat or corrode the axle, as many greases do.

Makes the vehicle last longer, run easier, smoother, and truer than it will do with any other oil, grease, or made-up axle grease that you can buy.

It is absolutely the best.

Be sure to get it.

In 1-lb. to 400-lb. containers. Sold at all first-class dealers, or shipped direct from the Dixon factory.

Write for price list.

DIXON'S GRAPHITE CYCLE LUBRICANTS



In the manufacture of Dixon's famous CYCLE LUBRICANTS only the pure flake Ticonderoga Graphite is used, finely ground, so as to be available for the finest bearing-parts of the wheel.

Whether a bicycle is ridden for pleasure or on business, whether a cheap or an expensive wheel is used, it will pay the rider to reduce the friction by good lubrication. It will save muscle wear and wheel wear. Will make the miles shorter and the pleasure greater.

It is not always necessary to give the chain or bearings a thorough cleaning after a long ride, although, of course, this would be better. But, if time or inclination is lacking, a little stick Graphite or Graphitoleo applied to the chain, and a little Graphitoleo to the bearings—which will take but a minute or two—is next best to a thorough cleaning, and will richly repay the rider for the slight trouble.

Some people object to Graphite on their chains because it is black. But if they will lubricate with oil alone they will find that it soon, by friction with the bearing-parts, becomes as black as graphite.

Oil and iron forms a stain which cannot be washed out, while Graphite is not a stain, and plain Graphite and oil will yield to soap and water.

The very fact that oil or any other lubricant (even "white" lubricants) will turn black after a few hours' riding proves that they are not perfect lubricants; since, if there were no friction or wear, there would be no metal ground into them to turn them black.

In short, it may be said that there is only one perfect lubricant for Cycles, Automobiles, and light-running vehicles, and that—Graphite.

Dixon's Graphite Cycle Lubricants, made from the best refined

Ticonderoga Flake Graphite, are the only Graphite Lubricants which are perfectly freed from impurities and gritty particles.

Therefore, Dixon's Graphite Cycle Lubricants are *the best* for every cyclist, automobilist, etc., to use.

DIXON'S CYCLE CHAIN GRAPHITE

(No. 678)

Consists of pure Ticonderoga Flake Graphite, ground with a small quantity of fine lubricating oil in such consistency as to hold well to the chain.

Of especial convenience to dealers, and in repair and renting shops, since, in this form, it is cheap, handy and convenient for application.

A can of Dixon's Cycle Chain Graphite, freely used in renting shops, will save many repairs, and will lengthen the life of the entire stock of wheels.

In $\frac{1}{8}$ -lb. screw-top tin cans, packed $\frac{1}{2}$ gross in a box. (See illustration on page 44.) Write for price list.

DIXON'S CYCLE GEAR LUBRICANT

(No. 687)

A similar preparation to Dixon's Cycle Chain Lubricant, but more especially adapted for the gears of chainless wheels. In use by the American Bicycle Co. and other large concerns. Should be in every factory and repair shop.



DIXON'S CYCLE CHAIN GRAPHITE

(No. 679)



This is the cyclist's pocket Stick Graphite, wrapped in tin foil and put in a neat, handy wooden holding-case. Not so convenient for a small tool bag as No. 691 (described below), but handier and cleaner for the pocket of cyclists who carry no tool bag.

No cyclist should ride without it. Stops chain squeaking. Helps up the hills. A panacea for stiff pedals, and all stiff bearings.

Packed in half-gross boxes, five gross to a case.

DIXON'S "L. A. W."

CYCLE CHAIN GRAPHITE

A handsomer package than No. 679, with beautiful L. A. W. purple label. Stick about the same size as 679.

Put up same as 679. (See illustration above, and on page 44.)

DIXON'S CYCLE CHAIN GRAPHITE

(No. 691. *Tool-bag Size*)

This is just the right size to fit a tool bag, and no tool bag outfit is complete without one. One small stick lasts a long while, and saves much hard pedalling and wear on both rider and wheel. A neat, tidy, handy package, in strong tin-foil wrapper and attractive label. (See illustration on page 44.)

Put up in pasteboard boxes, 3 dozen in a box, 5 gross in a case.

DIXON'S "GRAPHITOLEO"

(Trade Mark)



For the fine bearing parts of bicycles, the joints of chains, for coaster brakes ; for gunlocks, sewing machines, and other fine mechanism.

The finest lubricant in the world.

Made from the choicest, finely pulverized Ticonderoga Flake Graphite, and pure petrolatum. Warranted not to gum or turn rancid. Prevents rust.

Dixon's Graphitoleo is put up in neat collapsible tubes, is easy to use, and should be used by everybody.

Furnished on cards as per illustration (one dozen tubes on a card), 3 cards in a box, packed 5 gross in a case. Sold by all dealers.

In Bulk.—Dixon's Graphitoleo is also furnished in bulk, in 1 to 100-lb. packages and 350-lb. barrels.

See price list.

DIXON'S GRAPHITE FOR COMMUTATORS

We prepare, under the trade number of 690, a stick graphite $3 \times \frac{7}{8}$ inches, wrapped in tin foil and fitted with wooden boxes, which is well spoken of by dynamo engineers. Packing, weights, and sizes same as No. 679. Dixon's Graphitoleo (No. 692) is also used for dressing commutators, and is even preferred by some electrical engineers.



DIXON'S SILICA-GRAPHITE PAINT

THE DURABLE PROTECTIVE COATING FOR

*STEEL VIADUCTS, BRIDGES, IRON AND TIN ROOFS, TROLLEY POLES,
SMOKE-STACKS, BOILER FRONTS, AND CONDENSERS.*

DIxon's Silica-Graphite Paint is the original graphite and best protective paint made.

Thousands of important steel structures all over the world, protected from corrosion with Dixon's Silica-Graphite Paint, and durability records in different climates, under severe conditions of service, prove it to be the best and most economical protective paint to use.

This paint covers perfectly more surface to the gallon and protects from rust longer than the lead, metallic, asphaltum, and composition paints.

The covering capacity and durability of a protective paint, not the price, determine the economy of its use.

A few facts as to the merits of Dixon's Silica-Graphite Paint.

COMPOSITION, APPEARANCE, COVERING CAPACITY, AND DURABILITY

COMPOSITION

Pigment.—The Ticonderoga Flake Graphite; the hardest and toughest form of graphite mined in the world. Retains its laminated-crystalline formation to the finest degree of pulverization, thereby better protecting the binding material from destruction than the cheap, soft, amorphous forms of graphite.

A proportion of pure Silica is added as a filler.

The Silica-Graphite pigment is absolutely unaffected by heat, acids, gases, or chemicals.

Vehicle.—The purest double fire-boiled linseed oil. This binding material gives a tough, leather-like, elastic coating, unequalled for its wearing qualities.

This oil and the Silica-Graphite pigment produce a preservative coating which cannot be otherwise than durable and economical.

APPEARANCE

Dixon's Silica-Graphite Paint is manufactured in four handsome shades.



ILLUSTRATION FROM PHOTOGRAPH

Showing comparative sizes of 100-lb. kegs of White Lead and Dixon's Silica-Graphite Paint. Proving greater bulk and superior covering capacity of the latter.

Color No. 1, Olive Green

Color No. 2, Natural or Slate

Color No. 3, Dark Red

Color No. 4, Jet Black

All these colors, except the Olive Green, are fadeless.

Color No. 2 is especially attractive in its use on roofs, as it gives the appearance of slate, and never fading, the architectural effect is excellent.

COVERING CAPACITY

Dixon's Silica-Graphite Paint will cover perfectly 600 square feet to the gallon, on surfaces in good condition for painting.

The veneer-like surface of the Ticonderoga Flake Graphite pigment, the fact that there is no chemical combination between oil and pigment, and the paint having—pound for pound—two to three times greater bulk than lead and metallic paints, it covers a relatively greater surface.

It is brushed out with great ease on account of the smooth nature of the graphite, and saves cost in labor.

DURABILITY

Dixon's Silica-Graphite Paint has been on the market for thirty-five years ; and practical use in all climates has shown it to be unequalled as a protector of wooden and metal surfaces.

Records on file show that it will protect steel viaducts and bridges from corrosion for five to fifteen years, iron and tin roofs for ten years, and steel smoke-stacks from one to five years.

A perfect priming coat, over which any class of paint can be used. Can be used over other paints, but is recommended for both the priming and decorative coats.

Resists for years the rust-forming elements—rain, snow, wind-driven dust, and heat of the sun. The very best protective coating for surfaces subject to sulphur fumes.

SPECIAL—SMOKE-STACK PAINT, COLOR NO. 4

Dixon's Silica-Graphite Paint, color No. 4, is *specially* prepared to withstand the combined influences of intense heat and continued weather exposure.

It is equally useful for protection of all classes of iron work.

Steel smoke-stacks, gas holders, brewery condensers, and steel viaducts subject to sulphur fumes have been protected from corrosion for years with color No. 4.

This paint should be purchased in the original sealed packages, *ready mixed for use*, as manufactured by the Joseph Dixon Crucible Company.

Durability records, circulars, color charts, and price list, upon request.



Packages.—Ready mixed for use: $\frac{1}{2}$ and 1-gallon tin pails; 5 to 10 gallons in kegs; 25 to 50 gallons in barrels.

Paste, thick, ground in oil: 5 to 25-lb. tin pails; 25 to 100 lbs. in kegs; 250 to 700 lbs. in barrels. See price list.

DIXON'S GRAPHITE PIPE JOINT COMPOUND



The modern, perfect, pipe joint compound.

In every way superior to red lead.

Cheaper (because it goes farther), as well as better.

Makes better joints. Does not "set." After months or years, joints will yield to the tongs and render breaking unnecessary.

Saves time and material. Protects all parts covered with it.

For joints of radiators, steam and hot-water apparatus, gas pipes, indoor or outdoor, for protection of bolts and screws, and in other places, as a rust protector.

Invaluable to plumbers, machinists, steam and gas fitters, etc., etc.

In 1 to 25-lb. cans, and 50 and 100-lb. kegs. See price list.

DIXON'S TRACTION BELT DRESSING

For over twenty years, Dixon's Traction Belt Dressing and Preservative has been the best article of its kind on the market.

It is to-day in use in the largest machine shops, power plants, etc., throughout the world.

Warranted to give satisfaction.

It absolutely prevents a belt from slipping. Thoroughly preserves the leather, and protects the elasticity of the belt.



Two things belt owners should look out for : Prevention of slip. Belt preservation.

These two things are best guaranteed by the use of Dixon's Traction Belt Dressing.

When a belt slips, what do you do ?

Tighten it up ? Apply soap, rosin, tar, tallow, castor oil, inferior belt dressing ?

Relief may be obtained by any or all of these means, but it is only temporary.

Besides, *they all shorten the life of the belt.*

In the end they add to the cost of maintaining your plant.

The only safe, certain, permanent, inexpensive way, is to apply Dixon's Traction Belt Dressing.

In packages of 10 to 375 lbs.

Write for full descriptive literature and price list.

DIXON'S SOLID BELT DRESSING



For those who prefer it in this shape. In 1-lb. bars. Not equal in efficiency to the paste form, but the best *solid* belt dressing made.

DIXON'S ELECTROTYPEING GRAPHITE

In a business where so much depends upon a material for perfection of results, as in electrotyping, it pays to use the best. No electrotyper can afford to use aught but Dixon's Electrotyping Graphite.

Made of the choicest pure Ticonderoga Flake Graphite, prepared especially for the purpose; of perfect softness, fineness, and conducting properties, it is the only absolutely reliable brand.

For half-tone electrotyping it has no equal.

Three kinds:—No. 643 for molding.

XXXC " "

649 " polishing and conducting.

In 1 to 10-lb. tin cans, with removable covers. Neat and handy.



DIXON'S FINISHING RUBBER



The best you can buy. Made in our own factory from the finest up-river Para stock, imported by us direct.

No. 898 For Electrotyping

No. 1098 " Half-tone work.

Packed in boxes of one dozen. Write for price list.



SCENE IN THE DIXON FACTORY—A CORNER OF THE LABORATORY



DIXON'S
GRAPHITE PRODUCTS
FOR ELECTRICIANS

DIXON'S ELECTRICAL SUPPLIES

IT was to have been expected that the most up-to-date industry in the world, Electrical Engineering, should soon turn to its manifold uses the unique and wonderful properties of Graphite—particularly Dixon's Refined Flake Graphite.

Many of the articles described and illustrated on the preceding pages are used in the electrical industry itself, or in the many industries which derive much of their trade from the wants of electricians.

Thus, Dixon's Graphite Crucibles are used in electrical smelting. Dixon's Perfect Lubricant for Engines, Dynamos, etc. Dixon's Silica-Graphite Paint for trolley poles, electric light poles, etc. Dixon's Pulverized Graphite for electrolytic work, etc., etc.

In addition, we manufacture many important specialties and articles for electricians' use, to order as well as for stock goods, a few of which we illustrate and describe as below :

DIXON'S GRAPHITE BOXES

These are kept in stock in standard shapes and sizes for baking carbons, lamp filaments, etc. Special sizes made to order.

They will stand a heat of 4,000 degrees, last longer, and cost less in the long run, than iron or any other material.

DIXON'S GRAPHITE "FORMS"

Made in wedges and other shapes, on which to wind lamp filaments.



A GROUP OF ELECTRICAL SUPPLIES

DIXON'S GRAPHITE RESISTANCE RODS

Made to order only. Any size up to 1 inch diameter and 12 inches long. Resistance 1 to 1,000,000 ohms. The dimensions bear no particular relation to the resistance.

Of special value where there is but little room, and high resistance is required. Where much current is to be carried, sufficient radiating surface must be provided for, to prevent undue heating.

Made also in other forms than rods.

DIXON'S GROUND GRAPHITE

(*Trade Nos. 1365 & 1878*)

For use in the baking of carbons and lamp filaments.

Prevents exhaustion of the life of the carbons and filaments when in the fire, by giving up its own carbon to the oxygen, which would otherwise attack the carbons and filaments.

Furnished in any degree of fineness, made from pure Ticonderoga Flake Graphite.

DIXON'S GRAPHITE LAMP CEMENT

(*Trade No. 6250*)

For repairing incandescent lamps, Dixon's Graphite Lamp Cement is perfect. No form of carbon gives such reliable results, lasts so long, or increases, as it does, the efficiency and life of the lamp.

N. B.—Electricians are invited to write for literature regarding electrical devices and material.

We are prepared to manufacture anything that can be made from Graphite, and shall be pleased to correspond in regard to special requirements.

Samples on request.

DIXON'S GRAPHITE PRODUCTS FOR THE HOUSEHOLD

DIXON'S STOVE POLISH

(“Carburet of Iron”)

First put on the market in 1827, and for the past seventy years the favorite stove polish of the careful housekeeper, in this and other countries.

Dixon's Stove Polish is made from Dixon's Graphite. Called “Carburet of Iron” because seventy years ago it was believed to be



an iron compound. The name has ever since been used as a trade mark, although its principal ingredient is Dixon's Graphite, and it contains no iron whatever.

Dixon's (Carburet of Iron) Stove Polish is cleaner and easier to apply than any other stove polish made.

It is free from smell and poisonous vapors, creates no dust when properly applied, does not burn red, prevents rust, goes *three* times as far, and saves *half* the work of all other kinds.

Retailed in packages of about 8 ounces. For sale by dealers.



In Bulk.—Dixon's Stove Polish is also furnished, in bulk, to stove manufacturers and dealers.

In 25 to 250-lb. packages. Write for price list.

DIXON'S STOVE CEMENT

(*For Handy Housekeepers*)

Makes a quick repair for broken stove or range linings.

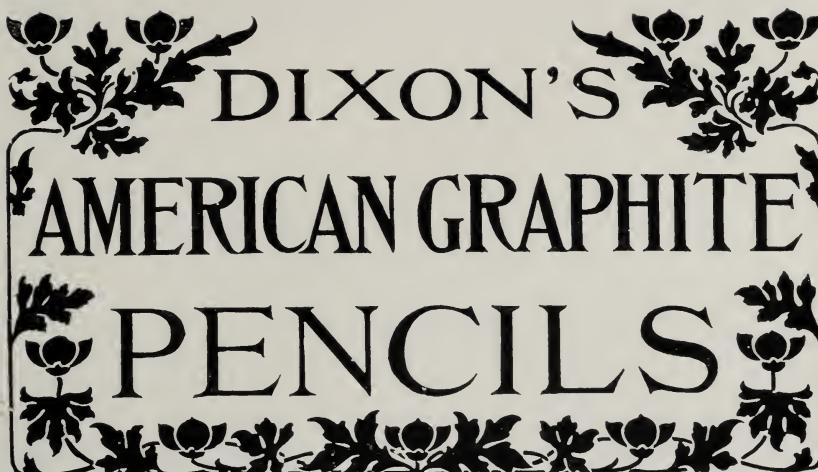
These cause endless trouble and annoyance, if not speedily attended to. Clinkers form and the iron warps or cracks, making a new lining necessary.

All this can be saved by filling the crack with Dixon's Stove Cement, first mixed into a paste with a little water. For rapid drying, add a small quantity of molasses to the water.

Simply apply with a knife, smooth off, allow to dry over night, and the next morning your lining will be as good as new.

Sold by dealers. In 6 and 10-lb. packages, one dozen in a case. 2½-lb. packages, 3 dozen in a case. See price list.





DIXON'S AMERICAN GRAPHITE PENCILS

GRAPHITE "LEAD" PENCILS

Of all the uses to which Graphite is put, none is of more universal importance than its use in the "lead" pencil.

The pencil of commerce is commonly called a "lead" pencil, although it contains no more lead than any other article made out of graphite. The "lead" in the pencil is simply graphite, mixed with clay to add hardness.

Of course the purer the graphite the better the pencil. Bad pencils, scratchy, uneven in color or hardness, are the commoner kind, and are caused by impure, inferior graphite. In Dixon's American Graphite Pencils only the choicest of pure, soft Graphite is used, specially refined and prepared by us for the purpose.

By reason of our special facilities for refining and manufacture—although one of the youngest concerns in the pencil business—we are to-day in a position to claim the lead in the pencil industry of the world, and to say that there are more Dixon's Pencils sold than any other make of high-grade pencils.

This is due to the fact that our supplies come from first hand, and also to the fact that our long experience in the mining and preparing of Graphite gives us the advantage in methods, processes, and results.

Next to Graphite, the most important material used in the manufacture of pencils is the wood.

The only wood which so far has been found to meet modern requirements for fine pencils is cedar.

The best pencil cedar is found in Florida, U. S. A.

The demand, however, is so great, that it is but a question of time when the supply of fine Florida cedar will be exhausted, and many pencil manufacturers are already using inferior cedars from other districts, to the dissatisfaction of their customers, since the wood is generally tough, hard, and cross-grained.

By buying Dixon's Pencils, however, you may be sure of getting the best Florida Cedar, as we have secured ample sources of supply for many years to come.

Our mills are situated at Crystal River, Florida, where all our wood is prepared and shipped direct to our pencil factories in Jersey City.

This gives us many further advantages over all competitors in the manufacture of fine pencils.

Dixon's American Graphite Pencils are the blackest, smoothest, strongest, toughest, most evenly graded pencils that can be bought anywhere at any price.

They are unapproachable—irreproachable.

We manufacture no less than Seven Hundred (700) different styles, and these are graded in different degrees of hardness to meet the requirements of different kinds of work as well as users' tastes.

A full description of all these different kinds will be found in our complete Dealer's Pencil Catalogue, a copy of which will be mailed to any dealer on application.

Our principal standard styles are described and illustrated in the following pages.

N. B.—We do not sell direct to consumers unless when our pencils are unobtainable through local dealers.

JOSEPH DIXON CRUCIBLE CO.,

JERSEY CITY,

U. S. A.

DIXON'S AMERICAN GRAPHITE PENCILS



DIXON'S FINE OFFICE PENCILS

(Stamped in gold, "DIXON'S AMERICAN GRAPHITE S M," etc.)

(*In Eight Grades of Hardness of Leads, viz.:*)

<i>S</i> — Soft . . .	Old Style, No. 1	<i>M</i> — Medium . . .	Old Style, No. 3
<i>S B</i> — Soft Black . . .	" No. 1 1/2	<i>M H</i> — Medium Hard . . .	" No. 3 1/2
<i>S M</i> — Soft Medium . . .	" No. 2	<i>H</i> — Hard . . .	" No. 4
<i>M B</i> — Medium Black . . .	" No. 2 1/2	<i>V H</i> — Very Hard . . .	" No. 5

These pencils are manufactured in Round and Hexagon shape, and comprise the assortment of DIXON'S AMERICAN GRAPHITE PENCILS, of the very finest style and quality, known to the trade as "Fine Goods." They are finished in Cedar, Satin, Black, and Maroon, and put up in Dixon's Patent Dozen Package, packed in half-gross boxes.

DIXON'S CARPENTERS' PENCILS

ALL KINDS ARE PACKED IN HALF-GROSS BOXES



DIXON'S CARPENTERS' PENCILS are made in 7-inch, 9-inch, and 12-inch lengths, oval shape, and also with beveled corners. Our fine grades are finished in Cedar, Satin, Maroon, Red Mottled, and Tortoise, stamped in gold, "DIXON'S AMERICAN GRAPHITE"

We also make, in same lengths, carpenters' pencils of intermediate and cheaper quality, stamped "DIXON'S," that, for the price, are not equaled by any other maker.



DIXON'S COLORED CRAYON PENCILS

PACKED IN HALF-GROSS BOXES



The uses of colored crayons have multiplied tenfold in ten years; they are now used, not only in every drawing class, but also for checking way-bills, invoices, marking newspapers, etc. The color should be vivid; they should mark smoothly and easily, be tough, and wear long with each sharpening. Those stamped "DIXON'S BEST" are made by perfected machinery, are carefully selected, and have a vividness and toughness unapproached by any other make.

Hexagon Shape, Gold Stamp, "Dixon's Best," Highly Finished

Trade No.

338	9-inch, red and blue leads (mammoth size).
347	7 " " " "
352	8 " " " "
348	7 " red lead only.
326	7 " green lead only (mammoth size).
327	7 " blue " " "

Round Shape, Gold Stamp, "Dixon's Best," Highly Finished

Trade No.

320	7-inch, light blue lead.	Trade No.	349	7-inch, red lead.
321	7 " lake red " "		350	7 " blue "
322	7 " pink " "		351	7 " terra cotta lead.
323	7 " violet " "		353	7 " yellow "
324	7 " orange " "		354	7 " green "
325	7 " olive green " "		335	7 " sepia "
343	7 " brown " "			

DIXON'S COLORED CRAYON PENCILS

(Continued)

Round Shape, Blind Stamp, Plain Finish

Trade No.		Trade No.	
339	7-inch, red and blue lead.	346	7-inch, yellow lead.
340	7 " black lead.	355	7 " blue "
344	7 " brown "	356	7 " red "
345	7 " green "		
816	7 " polished cedar, dead stamp, green lead.		
817	7 " " " " red "		
819	7 " " " " blue "		

RED AND BLUE "TRILATERAL" PENCILS

MAMMOTH SIZE

Gold Stamp, "Dixon's Best," Highly Finished

Trade No.		Trade No.	
331	7-inch, red lead.	332	7-inch, blue lead.

DIXON'S TAILORS' CRAYONS

FOR MARKING ON ALL GOODS OF LIGHT COLOR

Trade No.	
900	Black, square, beveled edge, black and gold label.
901	Red " " " red " " "
902	Blue " " " blue " " "

ONE DOZEN IN BOX, AND SIX BOXES IN CARTON

DIXON'S "HIGH SCHOOL" PENCILS

ROUND SHAPE, SATIN FINISH, REGULAR AND TABLET SIZES

Dixon's "High School" pencils, being of fine quality and carefully graded in seven degrees of hardness, have been adopted by the leading School Boards. The two sizes make them peculiarly suited for schools.

DIXON'S TABLET SIZE AMERICAN GRAPHITE PENCILS

PACKED IN HALF-GROSS BOXES, WITH DIXON'S PATENT DOZEN PACKAGE

Round shape, gilt stamp, finest cedar finish, tablet size, full length, with finest American graphite leads. Carefully graded in six grades of leads for school use.

DIXON'S CLOTH AND MARKING PENCILS

*LEADS AND WOOD OF LARGE DIAMETER AND ROUND SHAPE, PACKED
IN HALF-GROSS BOXES*

Trade No.

475 Cloth Pencil, black lead, polished cedar.

782 " " blue " " "

783 " " red " " "

788 " " blue " " "

Colored Finish

785 " " MECHANICS' " black lead, maroon finish, gilt stamp.

815 Polished red finish, extra large red lead, gilt stamp.

818 " blue " " " blue " " "

Plain Cedar and White Wood

474 Cedar finish, extra large blue lead, ink stamp.

784 White Wood Marking, special black lead.

787 " " " blue lead, "DIXON'S 787."

805 " " " red " " "DIXON'S 805."

806 " " " green " " "DIXON'S 806."

789 " " " black " leather and cloth marker.

803 " " Polished, Marking, extra large green lead.

804 " " " " " black "

807 " " " " " blue "

808 " " " " " red "

814 " " " " " yellow "

DIXON'S COLORED LEAD CARPENTERS'

WHITE WOOD, OVAL SHAPE, INK STAMP

Trade Numbers	390	391	392	393	394	395
Length	7 in.	9 in.	12 in.	7 in.	9 in.	12 in.
Color	Blue	Blue	Blue	Red	Red	Red

DIXON'S "BEST" SOLID CRAYONS

Not covered with wood, but solid, round, or hexagon shaped leads $\frac{5}{16}$ inch diameter, 7 inches long, paper covered. One dozen in neat box, and 6 boxes in carton.

Trade No.		Trade No.	
786	Best Blue . . .	round.	904 Best Red . . . hexagon.
380	Best Terra Cotta . . .	"	905 Best Black . . . "
382	Best Green . . .	"	906 Best Yellow . . . "
384	Best Black . . .	"	907 Best Blue . . . "
385	Best Yellow . . .	"	908 Best Terra Cotta . . .
386	Best Red . . .	"	909 Best Green . . . "
387	Best Brown . . .	"	1506 Best Purple . . . "
1500	Best Purple . . .	"	1507 Best Pink . . . "
1501	Best Pink . . .	"	1508 Best Orange . . . "
1502	Best Orange . . .	"	1509 Best Sepia . . . "
1503	Best Sepia . . .	"	

For railroad or editorial offices, laundry, or factory, these solid crayons are unequalled for quality and convenience.

DIXON'S SOLID CRAYONS

(For Color Work in Schools)

Trade No.		Trade No.	
1525	Six Colors.	1526	Twelve Colors.
	Red,		Terra Cotta,
	Blue,		Brown,
	Green,		Sepia,
	Yellow,		Pink,
	Orange,		Black,
	Purple,		White,
	and Nickel Holder.		and Nickel Holder.

These crayons are $3\frac{1}{2}$ inches long. Paper wrapped. Packed in slide boxes and cartons.

DIXON'S CRAYON HOLDER

(For Best Round Solid Crayons)

A handsomely finished nickelled holder for Dixon's solid round crayons. The ring clamp holds firmly, enabling the user to utilize every inch of the crayon.

DIXON'S PENCILS FOR SPECIAL PURPOSES

WITH LARGE DIAMETER LEADS



Trade No.

- 300 Dixon's "Operator," satin finish, round shape, large size, soft lead.
- 301 Dixon's "Ultimatum," satin finish, round shape, regular size, soft lead.
- 302 Dixon's "Carteret," cedar finish, round shape, regular size, half grade harder than No. 300.
- 303 Dixon's **Car Inspector** Pencil, satin finish, round shape, large size.

DIXON'S **CAR INSPECTOR** PENCIL fully meets the various requirements of the committee appointed by the Master Car Builders' Association. The pencil is not hardened or spoiled by age, and makes a clear black mark which cannot easily be erased. The leads are tough and strong, readily sharpened, but not easily broken. The marks do not smudge or run, and will never fade by exposure to light. There is no pencil made which is its equal for the work intended.

- 304 Dixon's 304 Pencil, satin finish, round shape, regular size, one grade harder than No. 300.
- 305 Dixon's **Paragon** Pencil, satin finish, hexagon shape, same grade of lead as No. 300.
- 310 Dixon's "Shading" Pencil, orange finish, round shape, regular size. The ideal pencil for freehand drawing and shading, it having been specially designed to meet the particular requirements of drawing classes in schools.
- 400 Fine cedar finish; hexagon shape; deep, rich black lead.

DIXON'S AMERICAN GRAPHITE SKETCHING CRAYON

Trade No.

341 We believe this crayon to be superior to anything in the market for like purposes. Its lead is tough and has a deep, rich black color.

DIXON'S AMERICAN GRAPHITE No. 342 CRAYON

342 For editorial, pressroom, and all newspaper work, railroad, express, and telegraph offices; and wherever a soft, deep, rich black color is desired.

The above two crayons are made in round shape only, in the finest cedar finish, and stamped in gold.

DIXON'S AMERICAN GRAPHITE ARTISTS' PENCILS

Packed in handsome white watered paper, gilt-trimmed boxes, with black and gold labels. One dozen in a box, three dozen in a carton.

They are made in hexagon shape only, beautifully finished in the natural color of the cedar wood, and are in eleven grades of leads: V. V. S.—very, very soft—to V. V. V. H.—very, very, very hard.

DIXON'S AMERICAN GRAPHITE PENCILS

(*With Patent Inserted Rubber Tablets*)

These pencils are in Dixon's "Fine Goods," and are in round and hexagon shape, cedar and satin finished, and S M, M, and H grades.

DIXON'S AMERICAN GRAPHITE PENCILS

(*With Nickel Clamp Tip Point Protectors and Rubbers*)

These are the Regular "Fine Goods" in both shapes and all Grades and Finishes, but with the addition of the Point Protector.

DIXON'S AMERICAN GRAPHITE COMPASS PENCILS

Hexagon and round shape, maroon finish, gold stamp, very fine quality, H and V H leads, $\frac{1}{8}$ inch diameter, but full length, to be cut in pieces for compass use, 1 gross in box.

DIXON'S TAPER SHAPED PENCILS

PACKED ONE DOZEN IN A BOX. SIX BOXES IN A CARTON



DIXON'S "AMBASSADOR" PENCILS

Round taper, with erasive rubber plug, No. 2 and No. 3 grades, four finishes.

Pencils similar to the "AMBASSADOR" can be supplied in tablet size.

DIXON'S "POLYTECHNIC" PENCILS

Round taper, with large erasive tablet, No. 2 and No. 3 grades, four finishes.

DIXON'S AMERICAN GRAPHITE "MONARCH" PENCILS

Hexagon taper, containing the finest American Graphite leads in No. 2 and No. 3 grades, and finished in maroon only.

DIXON'S "DAINTY" PENCILS

A tablet size, hexagon taper pencil, beautifully finished in maroon, with gilt stamp, and nickel tip with rubber, No. 2 and No. 3 grades.

DIXON'S AMERICAN GRAPHITE "STENOGRAPHER"

A handsome cedar-finished pencil in three grades of leads, S, S M, and M. Made in round shape.

DIXON'S PENCILS WITH NICKEL TIPS AND RUBBERS

PACKED IN HALF-GROSS BOXES, WITH DIXON'S PATENT DOZEN PACKAGE



DIXON'S "CABINET" PENCILS

Round and hexagon shapes, stamped in gold, No. 2 and No. 3 grades of leads; finished in black, satin, maroon, white, and tortoise.

DIXON'S "SECRETARY" PENCILS

Same as above, but tablet size.

DIXON'S "CONTINENTAL" PENCILS

Round shape only, with a square, fluted eraser, No. 2 and No. 3 grades, four finishes.

DIXON'S "ADVANCE" PENCILS

Round shape only, with a tablet-shaped eraser, No. 2 and No. 3 grades, four finishes.

DIXON'S "DIAMOND" PENCILS

Same as "Advance," but tablet size.

DIXON'S "TALISMAN" PENCILS

Round and hexagon shapes, with ball-shaped eraser, No. 2 and No. 3 grades, four finishes.

DIXON'S PENCILS WITH NICKEL TIPS AND RUBBERS—(*Continued*)

DIXON'S "*MASCOT*" PENCILS

Same as "*Talisman*," but tablet size.

DIXON'S "*COSMOS*" PENCILS

Round shape only, with a flat disc eraser. No. 2 and No. 3 grades. Satin finish.

DIXON'S "*TRILATERAL*" PENCILS

Triangular shape, No. 2 and No. 3 grades, finished in maroon and ebony.

DIXON'S "*RED, WHITE, AND BLUE*" PENCILS

Triangular shape, No. 2 and No. 3 grades, finished in red, white, and blue.

DIXON'S "*UNCLE SAM*" PENCILS

The most attractive national souvenir pencil in the market. Beautifully finished in red, white, and blue, and stamped in silver. No. 2 grade of lead.

MEDIUM PRICED PENCILS

WITHOUT CAPS OR TIPS, STAMPED IN GOLD, AND PACKED IN HALF-GROSS BOXES

"*Raven*," No. 2 and No. 3 leads, round shape only, black finish.

"*Metropolitan*," No. 2 and No. 3 leads; round and hexagon shape; maroon, cedar, and satin finish.

"*Century*," No. 2 and No. 3 leads, round and hexagon shape, cedar finish only.

"*Ruby*," No. 2 leads, hexagon shape, ruby finish.

"*Garnet*," No. 2 and No. 3 leads, round and hexagon shape, garnet finish.

CHEAP PENCILS

Experience has taught us that the first-class and higher-priced pencils are always cheaper in the end, and we always recommend the higher-priced pencils for that reason; still, we know that for common uses cheap pencils are demanded, and we make thirty styles with which to meet that demand. They run from a plain, unfinished cedar to a well-finished gilt-stamped pencil.

DIXON'S BLACK LUMBER PENCILS

PACKED IN HALF-GROSS BOXES



Trade No.

360 Dixon's Regular Pencil, $4\frac{3}{4}$ in. long, $\frac{1}{2}$ in. square, solid, with paper wrapper.
359 Same as No. 360, but **harder grade**, stamped H.
361 Dixon's Regular Lumber Pencil, $4\frac{3}{4}$ in. long, $\frac{1}{2}$ in. diameter, hexagon shape, japanned finish.
362 **Harder grade**, stamped H.
365 **Soft**, hexagon shape, paper covered.
365 **Extra Soft**, for green lumber, japanned.

DIXON'S COLORED LUMBER PENCILS

Hexagon Shape, Paper Covered

496 Yellow.
497 Terra Cotta.
520 Red.
521 Blue.
522 Green.

Dixon's Lumber Pencils, both black and colored, are first class in every particular, and are well known to the trade as **standard** for excellence and richness of color.

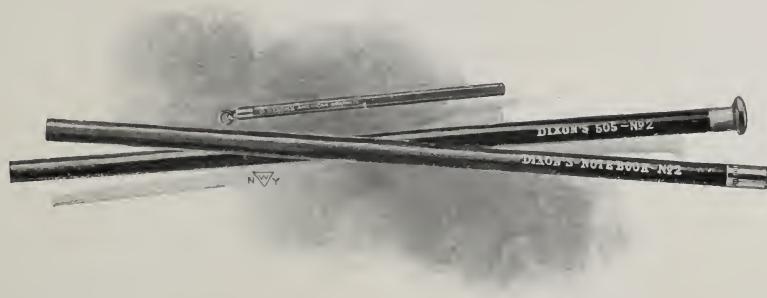
DIXON'S METAL WORKERS' CRAYONS

525 Sawed out of solid soapstone, and nothing equals it for marking on all dark-colored metals. Packed in half-gross boxes.
524 Sawed out of solid soapstone, flat shape, chisel point. Packed in half-gross boxes.

DIXON'S PENCILS WITH NICKEL TIPS

Dixon's "Note-Book" pencils, round and hexagon shapes, tablet size, No. 2 and No. 3 grades, four finishes.

Dixon's "Metropolitan," round and hexagon shape, regular size, No. 2 and No. 3 grades, four finishes.



DIXON'S "PROGRAMME" PENCILS

Round shape; finished in red, white, and blue; with gilt tips and rings.

Hexagon shape, finished in cedar and maroon, with gilt tips and rings.

The round shape will be finished to order in gold, silver, or other colors.

DIXON'S ASSORTMENT BOXES

To meet the large demand for assortment boxes, we have a carefully selected variety of attractive and salable styles, covering all the most popular finishes, with and without nickel tips and rubbers, and in combinations to suit all purchasers. The boxes are handsomely decorated and labelled, and command attention when on counter or in show case. Most of the boxes contain six dozen pencils, but boxes containing twelve dozen pencils can be furnished.

ASSORTMENT BOX No. 416

2 doz.	No. 313	Dixon's "Traveler,"	No. 2.
1	" 745	" "Cabinet,"	No. 2.
1	" 758	" "Secretary,"	No. 2 (tablet size).
1	" 942	" "Advance,"	No. 2.
1	" 956	" "Diamond,"	No. 2 (tablet size).

Fancy paper box, containing half-gross round shaped pencils, all with nickel tips and rubbers.

DIXON'S ASSORTMENT BOXES—(*Continued*)

ASSORTMENT BOX No. 418

1	doz.	No. 579	Round	"Red Coat,"	with inserted rubber tablets, gold stamp.
1	"	580	"	"Jet Black,"	with inserted rubber tablets, gold stamp.
1	"	745	"	"Cabinet,"	No. 2, maroon finish, gold stamp.
1	"	756	"	"Secretary,"	No. 2, satin " " "
1	"	948	"	"Advance,"	No. 2, ebony " " "
1	"	956	"	"Diamond,"	No. 2, maroon " " "

ASSORTMENT BOX No. 419

2	doz.	"Secretary"	pencils, tablet size, with nickel tips and rubbers.
2	"	"Cabinet"	" full " " " "
1	"	"Dixon's 505"	" tablet " with square top, bone tips.
1	"	"Metropolitan"	pencils, full size, with nickel tips.

A half-gross of round gilt No. 2, high-grade pencils, in assorted styles of finish.

ASSORTMENT BOX No. 420

1	doz.	Dixon's "Cabinet,"	hexagon, ebony finish, No. 2.
1	"	"Advance,"	round, cedar " No. 2.
1	"	"Diamond,"	" satin " No. 2.
1	"	"Traveler,"	" maroon " No. 2.
1	"	"Traveler,"	" " " No. 3.
1	"	"Secretary,"	" " " No. 2.

Contains one half-gross round and hexagon pencils, all with nickel tips and rubbers.

ASSORTMENT BOX No. 421

1	doz.	"Secretary,"	No. 2, tablet size, with nickel tips and rubbers.
1	"	"Cabinet,"	No. 2, full " " " "
1	"	"Note-book,"	No. 2, tablet " " " "
1	"	"Metropolitan,"	No. 2, full size, " " "
1	"	Polished black pencils,	with patent inserted rubbers.
1	"	" red	" " " " "

A half-gross of round shaped, well selected, and salable pencils.

DIXON'S ASSORTMENT BOXES—(*Continued*)

ASSORTMENT BOX No. 423

1 doz. "Cabinet," No. 2, round, with nickel tips and rubbers.
1 " " "Metropolitan," No. 2, hexagon, with nickel tips.
1 " " "Metropolitan," No. 2, round, without tips.
1 " " "Century," No. 2, hexagon, without tips.
1 " " "Century," No. 2, round, without tips.
1 " " "Raven," No. 2, round, without tips.

A half-gross of round and hexagon gilt-stamped pencils in assorted styles of finish.

ASSORTMENT BOX No. 424

2 doz. No. 946 Dixon's "Advance," maroon finish, No. 2.
2 " 942 " " satin " No. 2.
1 " 949 " " ebony " No. 3.
1 " 945 " " cedar " No. 3.

ASSORTMENT BOX No. 425

1 doz. Round, black finish, S M.
1 " " satin " M B.
1 " " maroon " M.
1 " " cedar " M H.
1 " " satin " H.
1 " " cedar " V H.

A half-gross of "DIXON'S AMERICAN GRAPHITE PENCILS."

ASSORTMENT BOX No. 429

2 doz. Carpenters' No. 410 . . . 7-inch oval, cedar.
1 " " " 514 . . . 7 " white wood, 6-inch rule.
1 " " " 517 . . . 7 " oval, mottled.
1 " " " 535 . . . 7 " bevelled edge, satin.
1 " " " 232 . . . 7 " oval, stained red.

ASSORTMENT BOX No. 430

1 doz. No. 313 "Traveler."	3 doz. No. 315 "Tip Top."
1 " 718 "Cabinet."	1 " 268 "Artisan."
1 " 288 "Talisman."	1 " 269 "
1 " 926 "Trilateral."	1 " 271 "
1 " 944 "Advance."	1 " 756 "Secretary."

One gross.

DIXON'S ASSORTMENT BOXES—(*Continued*)

ASSORTMENT BOX No. 431

1	doz.	No. 313	"	Traveler,"	maroon	finish,	No. 2.
1	"	314	"	"	"	"	No. 3.
1	"	284	"	Talisman,"	cedar	"	No. 2.
1	"	728	"	Cabinet,"	tortoise	"	No. 2.
1	"	1256	"	"	white	"	No. 2.
1	"	1400	"	Cosmos,"	satin	"	No. 2.

A half-gross of round and hexagon pencils, with nickel tips and rubbers.

ASSORTMENT BOX No. 433

1	doz.	"	Cabinet,"	hexagon,	gold	finish.
1	"	"	Secretary,"	"	"	"
1	"	"	Trilateral,"	gold	finish.	
1	"	"	Cabinet,"	round,	aluminum	finish.
1	"	"	Secretary,"	"	"	"
1	"	"	Trilateral,"	aluminum	finish.	

A half-gross of beautifully finished pencils, with nickel tips and rubbers.

ASSORTMENT BOX No. 434

1	doz.	"	Cabinet,"	round,	No. 2,	with	nickel	tips	and	rubbers.
1	"	"	"	hexagon,	No. 2,	"	"	"	"	"
1	"	"	Metropolitan,"	hexagon,	No. 2,	with	nickel	tips	only.	
1	"	"	Tablet	size,	round,	No. 2,	with	nickel	tips	only.
1	"	"	Secretary,"	hexagon,	No. 2,	with	nickel	tips	and	rubbers.
1	"	"	"	round,	No. 2,	"	"	"	"	"

A half-gross of pencils beautifully finished in white.

ASSORTMENT BOX No. 435

1	doz.	No. 313	"	Traveler,"	maroon	finish,	No. 2.
1	"	314	"	"	"	"	No. 3.
1	"	756	"	Secretary,"	satin	"	No. 2.
1	"	766	"	"	ebony	"	No. 2.
1	"	942	"	Advance,"	satin	"	No. 2.
1	"	958	"	Secretary,"	maroon	"	No. 2.

A half-gross of round and hexagon pencils, with nickel tips and rubbers.

DIXON'S SLATE PENCILS IN WOOD

Dixon's Slate Pencils in wood are in round, hexagon, and oval shapes. The "lead" is round shape, and unsurpassed for marking quality. They are made in regular and tablet size, and finished in cedar, black, red, green, yellow, pink, light blue, and dark blue polish.

DIXON'S FELT ERASIVE RUBBERS

Superlatively Fine Quality



Dixon's felt rubbers are manufactured from the choicest stock obtainable, in blocks and bars, from 8 to 20 pieces to the pound, and in bevelled end bars, from 8 to 120 pieces to the pound. Packed in one-pound boxes.

Typewriters' erasers of several sizes are packed one dozen in a box. Six boxes in a carton.

Dixon's eraser No. 899 is a disc with nickel centre, and most convenient for use on typewritten work.

Dixon's No. 897 is encased in polished cedar, one end for pencil and one end for ink erasing.

Dixon's No. 1097 is similar, but ink eraser only. We manufacture also a full and attractive variety of nickel point protectors containing erasive rubbers.

Dixon's Novelty Eraser No. 1099 is one of the latest forms of erasers for fine lines. Cubes of ink and pencil erasive rubber are joined by a handsome nickel tube in a convenient shape for desk or pocket.

